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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* FLORIAN KEHRER

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Appeal 2009-006299  
Application 10/780,243  
Technology Center 1700

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Decided: December 22, 2009

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Before JEFFREY T. SMITH, MICHAEL P. COLAIANNI, and  
JEFFREY B. ROBERTSON, *Administrative Patent Judges*.

COLAIANNI, *Administrative Patent Judge*.

**DECISION ON APPEAL**

Appellant appeals the final rejection of claims 1, 2, 4-8, 10, 13, 15-18, and 20 under 35 U.S.C. § 134. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b).

We AFFIRM.

Appellant describes a liquid distributor having a primary distribution stage (3) with a plurality of outlet openings and a secondary distribution

stage (4 and 5) which is arranged below the primary distribution stage and includes distribution gutters (5) (Spec. 1; Fig. 2).

Claims 1, 2, 4, 5, 6, and 7 are illustrative:

1. A liquid distributor comprising

at least one channel for receiving a flow of liquid, said channel having a plurality of outlet apertures at longitudinally spaced apart points for an outflow of liquid from said channel in a plurality of streams;

an areal guide means extending below said channel to receive and laterally disperse at least one of the streams of liquid flowing from said apertures of said channel, said guide means having a drip edge at a lower end for dispensing drops of the liquid received thereon along longitudinally spaced apart points; and

at least one gutter disposed below said channel with said guide means passing therethrough, said gutter having a throttle means for distributing the liquid descending on said guide means by means of a hydrodynamic balance.

2. A liquid distributor as set forth in claim 1 wherein said gutter is disposed in parallel to said channel.

4. A liquid distributor as set forth in claim 1 wherein said gutter includes a pair of walls defining said throttle means.

5. A liquid distributor as set forth in claim 4 wherein said walls define a downwardly tapering region and a gap with said guide means disposed in and extending through said gap, said guide means being in contact with each said wall.

6. A liquid distributor as set forth in claim 5 wherein said guide means is a mesh having a fine mesh structure for distribution of a liquid with low viscosity.

7. A liquid distributor as set forth in claim 5 wherein said guide means is a mesh having a coarse mesh structure to define broad gaps

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between said mesh and said walls of said gutter for distribution of a liquid with high viscosity.

The Examiner relies on the following prior art reference as evidence of unpatentability:

Acker                          4,846,266                          Jul. 11, 1989

The rejections provided by the Examiner are as follows:

1. Claims 1, 4, 5, 8, 10, 15-17, and 20 are rejected under 35 U.S.C. § 102(e) as being unpatentable over Acker.
2. Claims 2, 6, 7, 13, and 18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Acker.

Regarding rejection (1), Appellant argues claims 1, 4, and 5. Claims 8, 10, 15-17, and 20 stand or fall therewith.

Regarding rejection (2), Appellant argues claims 6 and 7. Accordingly, the rejection of claims 2, 13, and 18 stand or fall therewith.

#### *REJECTION (1): § 102(b) Rejection*

#### ISSUES

1. Has Appellant shown that the Examiner reversibly erred in finding that Acker teaches “an areal guide means . . . having a drip edge at a lower end for dispensing drops of the liquid received thereon along longitudinally spaced apart points” and “at least one gutter disposed below said channel with said guide means passing therethrough, said gutter having a throttle means for distributing the liquid descending on said guide means by means of a hydrodynamic balance” as recited in claim 1? We decide this issue in the negative.

2. Has Appellant shown that the Examiner reversibly erred in finding that Acker teaches the claimed “gutter includes a pair of walls defining the throttle means” (claim 4) and “said walls define a downwardly tapering region and a gap with said guide means disposed in and extending through said gap, said guide means being in contact with each said wall” (claim 5)? We decide this issue in the negative.

#### PRINCIPLES OF LAW

To anticipate a claim, a prior art reference must disclose every limitation of the claimed invention, either explicitly or inherently. *In re Schreiber*, 128 F.3d 1473, 1477 (Fed. Cir. 1997).

A patent applicant is free to recite features of an apparatus either structurally or functionally. See *In re Swinehart*, 58 C.C.P.A. 1027, 439 F.2d 210, 212, 169 USPQ 226, 228 (CCPA 1971) (“[T]here is nothing intrinsically wrong with [defining something by what it does rather than what it is] in drafting patent claims.”). Yet, choosing to define an element functionally, i.e., by what it does, carries with it a risk. As our predecessor court stated in *Swinehart*, 439 F.2d at 213, 169 USPQ at 228:

where the Patent Office has reason to believe that a functional limitation asserted to be critical for establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on.

*Schreiber*, 128 F.3d at 1478.

Absence of a prior art disclosure relating to function does not defeat a finding of anticipation. *Schreiber*, 128 F.3d at 1477. Applicant has the burden of showing that the prior art apparatus or device does not

inherently possess the functionally defined limitations of the claimed apparatus. *Id.*

#### FACTUAL FINDINGS (FF)

1. The Specification indicates that tapering walls 51, 52 of the gutter 5 function as throttle means 25, which exerts a resistance on the stream of the fluid 20 that is flowing down the guide means 4 (Spec. 5; Fig. 2).
2. The Examiner relies on Acker's Figure 7 embodiment and finds that the Figure 7 embodiment teaches a tapering region with a gap which functions as a throttle means (Supp. Ans. 3, 5-6). Appellant does not contest this particular finding.
3. With regard to the Figure 7 embodiment, Acker discloses:

Due to the porosity in the porous plastic material 52, the flow of water is inhibited to substantially distribute evenly throughout the trough 14 above the porous material 52 and the water can flow through the porous spacing elements . . . .  
(col. 4, ll. 15-20).

Acker shows that the oblique walls 24 extend above and along the porous body 52 (Fig. 7). The Examiner finds that the combination of the porous body 52 that slows the liquid and the tapering walls would provide a throttling effect and a hydrodynamic balancing of the liquid (Supp. Ans. 5-6).

4. The Examiner finds that Acker's and Appellant's drip edges are similarly structured (i.e., spaced apart porous drip points) which must function in the same manner (Supp. Ans. 6). Similarly, the Examiner finds that Acker's structure is capable of producing drips if the operating parameters (e.g., volume of liquid) are appropriately selected (Supp. Ans. 7). Appellant does not contest these findings.

5. Acker does not disclose using the spacing elements 26 in the Figure 7 embodiment.

## ANALYSIS

### *Issues (1) and (2): Claim Features not Taught*

#### Issue (1)

Appellant argues Acker fails to teach the areal guide means feature or the gutter having throttle means feature of claim 1 (Br. 5-12). Appellant further argues that the tapering side walls constituting the throttle means of claims 4 and 5 are missing from Acker (Br. 13). We do not agree.

Appellant argues that Acker's tapering walls are not throttle means and that the liquid descends through porous material 52, not *on* the porous material as required by the claims (Br. 6-7). The Specification describes the throttle means as including tapering walls. Accordingly, we agree with the Examiner (Supp. Ans. 3, 5-6) that Acker's oblique walls would constitute a throttle means as claimed.

Moreover, as the liquid permeates through the pores of the porous plastic material, the liquid moves over and, thus, on the plastic material forming the pores as it progresses through the pores toward the edge. As the liquid permeates the porous material, the oblique walls channel and distribute the fluid through the narrowing opening and toward the edge.

We also note that Acker's figure 7 illustrates that a portion of the oblique walls extend above the porous material. As such, the oblique walls would function to distribute the descending liquid across the porous material. Acker discloses that the porous material inhibits flow of the water to distribute evenly the liquid throughout the trough and across the porous

material. For these reasons, Appellant's argument that the tapering side walls (i.e., throttle means) do not distribute liquid descending on the porous material is unpersuasive.

Appellant argues that Acker's alternating finger and slot arrangement would prevent any uniform distribution of water from the bottom of the material such that Acker's structure would not distribute the liquid by means of a hydrodynamic balance (Br. 7). However, the Examiner finds that Acker's drip edges have a similar structure as Appellant's drip edges such that a similar uniform distribution would be present in Acker's device (Supp. Ans. 6). Appellant has not shown error in this finding.

Moreover, Acker discloses that the porous material is structured to evenly distribute the liquid. In other words, the combination of the trough structure, which contains the liquid, and the porous material provide an even distribution (i.e., a hydrodynamic balance) of the liquid across the entire porous material. Appellant's argument is unpersuasive.

Regarding the guide means feature, Appellant argues that Acker does not teach an "areal" guide means; Appellant defines "areal" as pertaining to an area (Br. 8). The Examiner finds that porous material 52 must have surfaces that have areas such that material 52 may be considered an "areal guide means" (Supp. Ans. 6-7). Appellant has not shown the Examiner's finding to be erroneous.

Appellant argues that Acker does not have a drip edge for dispensing drops because there is no disclosure that the water forms drops (Br. 8). However, an absence of disclosure relating to function does not defeat a finding of anticipation. *Schreiber*, 128 F.3d at 1477. Appellant's argument fails to address the Examiner's determination that Acker's structure is

capable of performing the claimed function (i.e., dispensing drops) if the operating conditions applied to the structure are properly selected.

Appellant has the burden of showing that Acker's invention is incapable of performing the claimed function. *Id.*

Attempting to satisfy the burden, Appellant argues that Acker's figure 7 embodiment must include spacer elements 26 to function, which would prevent a flow or dripping of water from the bottom edge of the triangular portions of the porous material (Br. 9-12). However, Acker does not disclose that spacer elements 26 are used with the figure 7 embodiment. Indeed, Acker discloses that the figure 7 embodiment is an alternative to the other disclosed embodiments that use spacer elements 26.

Moreover, Appellant has the burden of establishing by way of clear and convincing evidence that an embodiment in a patent is inoperable. *In re Spence*, 261 F.2d 244, 246 (CCPA 1958). However, Appellant merely provides attorney argument that Acker's figure 7 embodiment is inoperable absent spacer 26 (Br. 9-12), which is insufficient to satisfy the clear and convincing evidence standard and thus is unpersuasive.

## Issue (2)

With regard to claim 4, Appellant argues that Acker does not teach a pair of walls defining the throttle means (Br. 13). We are unpersuaded by this argument for the reasons noted above with regard to Issue (1). Specifically, Acker teaches oblique walls that function in the same manner as Appellant's throttle means as discussed above.

With regard to claim 5, Appellant argues that Acker does not disclose that the throttle means includes wall that define a gap with the guide means

disposed in and extending through the gap (Br. 13). Appellant contends that the porous material is contained completely within the gutter 14 (Br. 13).

Contrary to Appellant's arguments, the Examiner finds that the porous material extends through and below the walls of the gutter (Supp. Ans. 8). Appellant has not shown these finding to be erroneous. In fact, Acker's figure 7 plainly shows that porous material extends through a gap formed by the oblique walls of the trough 14. Appellant's argument is without persuasive merit.

For the above reasons, we affirm the Examiner's § 102(b) rejection of claims 1, 4, 5, 8, 10, 15-17, and 20 over Acker.

*Rejection (2): § 103(a) Rejection over Acker*

ISSUE

Has Appellant shown that the Examiner reversibly erred in determining that it would have been obvious to one of ordinary skill in the art to position a gutter parallel to the channel (claim 2) or use a fine or coarse mesh for guide means (claims 6 and 7, respectively)? We decide this issue in the negative.

FINDINGS OF FACT

6. The Examiner determines, and Appellant does not contest, that orienting the channels (i.e., pipes) and gutters (i.e., trough) parallel would have been within the skill of an ordinary artisan because the “modification from a perpendicular relationship would not materially effect the operation of the apparatus, in view of the uniform distribution capabilities of the guide means as taught by Acker” (Supp. Ans. 4; Br. and Reply Br. *generally*).

7. The Examiner further determines, and Appellant does not contest, that in view of Acker's disclosure of multiple useable materials for the guide means, it would have been obvious to substitute a mesh structure of any known mesh size for the porous material, as taught by figure 7 of the reference, since such would allow for the use of the reference apparatus with a liquid having a viscosity that would be too great to use with the porous plastic material. (Supp. Ans. 4; Br. and Reply Br. *generally*).

#### PRINCIPLE OF LAW

The applicant bears the procedural burden of showing error in the Examiner's rejections. *See, e.g., In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006) ("On appeal to the Board, an applicant can overcome a rejection [under § 103] by showing insufficient evidence of *prima facie* obviousness") (citation and internal quote omitted).

#### ANALYSIS

With regard to claim 2, Appellant argues that it would not have been obvious to orient Acker's pipes parallel to trough 14 because the trough 14 would sag in the middle thereby defeating the purpose of uniform distribution of water along the length of the trough (Br. 14).

With regard to claims 6 and 7, Appellant argues that Acker does not teach a fine or coarse mesh structure for the distribution of a liquid with a low viscosity or high viscosity (Br. 14-15).

However, Appellant's arguments fail to address the Examiner's determination that Acker's teachings suggest selecting the particular mesh

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size or parallel orientation of the pipe and trough such that the claimed invention would have been obvious to one of ordinary skill in the art (FF 6-7). In other words, Appellant has not shown reversible error in the Examiner's stated rejection.

Furthermore, Appellant's arguments regarding claim 2 are unpersuasive because they fail to provide any objective supporting evidence that Acker's troughs would be insufficiently strong to support a parallel orientation of the pipe. Instead, Appellant relies on mere attorney argument.

We affirm the Examiner's § 103(a) rejection of claims 2, 6, 7, 13, and 18 over Acker.

#### DECISION

The Examiner's § 102 and § 103 rejections are affirmed

The Examiner's decision is affirmed.

#### ORDER

AFFIRMED

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